

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David R. Metzger on March 3, 2009.

In the claims, amend claims 4 and 7.

4. (Currently Amended) A micro-resonator comprising:

a substrate;

a plurality of micro-resonator devices having a beam structure on said substrate,
wherein,

said beam structure includes a vibrating electrode beam,

said micro-resonator devices are electrically connected in parallel,

each of said plurality of micro-resonator devices has an input electrode on
the same plane as the substrate that branches into at least two branched input
electrodes,

each of said plurality of micro-resonator devices has an output electrode
on the same plane as the substrate that branches into at least two branched output
electrodes and the branched output electrodes are parallel to the branched input
electrodes,

each of said plurality of micro-resonator devices has a space between the branched input electrodes and the branched output electrodes, and each of said plurality of micro-resonator devices has a vibrating electrode beam serving as a diaphragm crossing over the space between a branched input electrode and a branched output electrode and in an opposing relation to the input electrode and the output electrode [[and in an opposing relation to the input electrode and the output electrode]].

7. (Currently Amended) A communication apparatus comprising:

a filter for band-limiting a transmission signal and/or a reception signal,

wherein the filter comprises:

a micro-resonator with a plurality of micro-resonator devices having a beam structure on a substrate,

the micro-resonator devices are electrically connected in parallel, and the beam structure includes a vibrating electrode beam,

each of said plurality of micro-resonator devices in said filter includes an input electrode on the same plane as the substrate that branches into at least two branched input electrodes,

each of said plurality of micro-resonator devices in said filter includes an output electrode on the same plane as the substrate that branches into at least two branched output electrodes and the branched output electrodes are parallel to the branched input electrodes,

each of said plurality of micro-resonator devices in said filter includes a space between the branched input electrodes and the branched output electrodes,

each of said plurality of micro-resonator devices in said filter includes a vibrating electrode beam serving as a diaphragm crossing over the space between a branched input electrode and a branched output electrode and in an opposing relation to the input electrode and the output electrode [[and in an opposing relation to the input electrode and the output electrode]].

Drawings

Figure 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Upon further review by the Examiner, Fig. 10 does not appear to have a label indicating prior art (see replacement drawings submitted August 28, 2008), thus the drawings remain objected to.

Allowable Subject Matter

Claims 1 and 3 – 8 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or suggest the limitations of the claims.

Guillon teaches a resonator where bridge portions (36, 37) form a variable capacitor thus not comprising a vibrating electrode.

Frey shows a resonator comprising linked parallel beams but does not teach or suggest separate beams or input and output electrodes on the same plane as the substrate (where electrode terminals 7 are elevated from the substrate), nor would it have been obvious to combine the prior art of record thus the claims are allowable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Naniwada et al shows a filter device.

Morita shows a microresonator.

Naniwada shows a micro-resonator.

Morita shows a microresonator.

Tanaka shows a micro-oscillator.

Tada shows a microresonator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEAN O. TAKAOKA whose telephone number is (571)272-1772. The examiner can normally be reached on 9:00a - 5:30p Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean O Takaoka/
Primary Examiner, Art Unit 2817